

[Prof Carmen Melendez's](#) work was recently highlighted in a Multiple Sclerosis Research Program of Department of Defense

The booklet available [here](#) refers to work on Promoting Myelin Formation via Manipulation of Oligodendrocyte Cytoskeleton see pages 6-7



Also the group's paper on

Acute and chronic demyelinated CNS lesions exhibit opposite elastic properties

was published in [Scientific Reports](#)

SCIENTIFIC REPORTS

OPEN Acute and chronic demyelinated CNS lesions exhibit opposite elastic properties

Wenwen Li, Vincent J. Storch, & Benjamin B. Bostelmeier^{1,2} | Carmen Melendez-Vasquez^{1,2}
Increased deposition of extracellular matrix (ECM) is a common feature of neural degeneration and
regeneration. However, the mechanical properties of the ECM, including the mechanical properties
of the myelin sheath, have not been systematically investigated. Here, we use atomic force microscopy
(AFM) to measure the mechanical properties of myelin sheaths in acute and chronic demyelinated
lesions. We find that the mechanical properties of myelin sheaths in acute demyelinated lesions are
stiffer than those in chronic demyelinated lesions. These findings suggest that the mechanical
properties of myelin sheaths may play a role in the pathogenesis of multiple sclerosis (MS) and
other demyelinating diseases. This work provides a new perspective on the mechanical properties of
myelin sheaths and may have implications for the development of new therapies for MS and other
demyelinating diseases.

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